**Ben Goldberg 470-505-6393 – bg10389@gmail.com – Kennesaw, GA – github.com/bg10389**

**Inventor – Maker – Technician – Lead Researcher**

**EDUCATION**

**Kennesaw State University (KSU)** Marietta, GA Bachelor of Science in Mechatronics Engineering May 2027

**CERTIFICATIONS**

**OSHA – 10HR General Industry Certification**

**MSHA – 30HR Mine Safety Certification**

**TECHNICAL SKILLS**

* **Programming Languages**: C++, Python, SIEMENS PCS7 Controls Suite
* **Operating Systems**: Windows 10/11, Linux, Unix,
* **Software**: Office suite, Visual Studio/VS Code, MATLAB, Git, Gitlab, GitHub, ROS II
* **Manufacturing: 5 Years** experience in metalworking, welding, machining, fabrication, and machine assembly.
* **Additive manufacturing: 4 years** of experience in industrial and commercial 3d printing, Stratasys machine repair
* **CAD/CAM: 3 years** of Autodesk Inventor, HSMworks, AutoCAD, Recap, SolidWorks, and Fusion 360

**RELATED EXPERIENCE**

**Aerospace Manufacturing/Process Engineer Intern** Canton/Ball Ground, GA

*Universal Alloy Corporation* June 2022 – December 2022

* **Assigned** problems/goals, tasked with coming up with solutions to said problems. I have done everything from machining parts for drawer assemblies to designing frictionless, heat-resistant resting plates for light duty aluminum extrusion presses.
* **Designed robust** solutions for lean manufacturing, streamlining the aluminum extrusion process and optimizing billet cut process.
* **Specialized in fabrication** of low-cost, same day solutions to factory downtime and optimization of production lines with 5S factory infrastructure.

**Machinist Internship** Cypress, TX

*HC Machining services* June 2020– August 2020

* **Facilitated** repairs on CNC routers, Gained Certification on manual machining working on engine lathes and milling machines.
* **Rebuilt** old milling machines and lathes, reverse engineering parts for remanufacture.

**Automation Instrumentation Intern** Atlanta, GA

*Thyssenkrupp Polysius/TKIS Polysius* December 2022– Present

* **Design** and publish electrical flowsheets, diagrams, control cabinet plotting, IO distribution, and wiring schematics for multi-million-dollar cement manufacturing facilities nationwide.
* **Versed** in PSC7 workspace, developing schematics and ladder logic programming for PLC units from Siemens.
* **Continually improving client-supplier relations, hitting deadlines ahead of time, every time.**

**PROJECT EXPERIENCE**

**Invention s** Marietta, GA

*Researcher*  Fall 2022 – Present

* **First Year Scholars-** Mechanical lead on the design and fabrication of a low-cost solar panel fracture analysis machine, using back current to detect fractures in solar cells.
* **SPCEET Undergraduate Research- Lead Researcher** of a project developing low-cost high efficiency axial flux motors with DFM constraints, invented and tested custom winding configurations for brushless DC motors.
* **KSU Electric Vehicle Team –** Designed and executed the fabrication and wiring of a full body power distribution panel for our autonomous electric go kart, optimizing wiring harnesses for CAN BUS data transmission and PoE distribution to Ubiquiti network devices.
* **Personal Electric Vehicles –** Designed and built multiple PEVs including Skateboards, e-bikes, and e-scooters from the ground up.
* **Reverse Engineering –** Active development in reverse engineering data communications in low-cost brushless motor controllers for use in industrial and consumer applications

**LEADERSHIP EXPERIENCE**

* **Leadership Skills :** NYLT, Vice President of Electric Vehicle Team, Lead Researcher on multiple undergrad research projects

**HONORS & INVOLVEMENT**

1. EV Grand Prix 1st place (August 2022- May 2022); 3rd place (May 2023), Kennesaw State University Electric Vehicle Team
2. Research achievements – 15,000 dollars funded for research projects, Future Oral presentations at IEEE southeast symposium.